UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Grid Reliability and Resiliency Pricing	))))	**Docket No. RM18-1-000**

JOINT INDUSTRY REPLY COMMENTS OPPOSING THE DOE PROPOSAL

Pursuant to the Federal Energy Regulatory Commission's ("FERC" or "Commission") October 2, 2017 Notice Inviting Comments,[1] the following entities (collectively, "Joint Industry Commenters")[2] submit reply comments:

- Advanced Energy Economy
- Alliant Energy Corporate Services, Inc.
- American Biogas Council
- American Council on Renewable Energy
- American Forest & Paper Association
- American Petroleum Institute
- American Wind Energy Association
- Conservation Law Foundation
- EDP Renewables North America LLC
- Electric Power Supply Association[3]
- Electricity Consumers Resource Council
- Energy Storage Association
- E.ON Climate & Renewables North America, LLC
- Independent Petroleum Association of America
- Interstate Natural Gas Association of America
- Invenergy Thermal Development LLC
- Natural Gas Supply Association
- NextEra Energy Resources, LLC

[1] *Grid Reliability and Resilience Pricing*, Notice Inviting Comments, Docket No. RM18-1-000 (issued Oct. 2, 2017) ("October 2 Notice").

[2] With respect to associations, these reply comments represent the position of each association as an organization, but not necessarily the views of any particular member of such association with respect to any issue.

[3] Participation in these Joint Industry Reply Comments represents the position of the Electric Power Supply Association ("EPSA") as an organization, but not necessarily the views of individual members of EPSA with respect to any issue, in particular Talen Energy Corporation.

- Solar Energy Industries Association
- Vestas-American Wind Technology, Inc.

Each of the entities supporting this joint filing urged the Commission in initial comments to reject the proposal by the Secretary of Energy ("Secretary") for discriminatory payments to certain merchant coal-fired and nuclear generators made in the Notice of Proposed Rulemaking ("DOE NOPR").[4] For the reasons described herein, the entities joining these reply comments continue to urge the Commission not to adopt the DOE NOPR.

I. EXECUTIVE SUMMARY

In response to the DOE NOPR, the Commission has received hundreds of initial comments filed by entities that cover the entire energy industry landscape across all regions under the Commission's jurisdiction. Comments were submitted by individuals, Congressional leaders, former FERC Commissioners, electric utilities, power marketers, merchant generators, fuel suppliers, regional entities, governmental agencies and industry trade organizations, with a substantial majority of those entities submitting substantive pleadings being critical of the preferential payments proposed in the DOE NOPR.

In its development of competitive wholesale electricity markets over the past two decades, the Commission has crafted revisions to regional market tariffs with great care following extensive deliberation. In most cases, the Commission has allowed each regional market to employ stakeholder processes provided for in the regional transmission organization ("RTO") or independent system operator ("ISO") tariff to propose and develop necessary changes to address regional needs. Without even the opportunity for discussion in these stakeholder processes, the Secretary, through the DOE NOPR, has requested that the Commission impose an abrupt and unjustified cost-based compensation mechanism for a specific

[4] Grid Resiliency Pricing Rule, 82 Fed. Reg. 46,940 (Oct. 10, 2017) ("DOE NOPR").

class of generation resources. The goal of the payments would be to prevent the retirement of merchant coal-fired and nuclear generation that is not currently cost competitive, on the grounds that these resources may be needed for "resiliency" in the future.

The record in this proceeding, including the initial comments, does not support the discriminatory payments proposed in the DOE NOPR. There has been no showing that the existing Commission-approved tariffs governing the operation of RTO/ISO energy and capacity markets have become unjust, unreasonable or unduly discriminatory as would be required for the Commission to act under section 206 of the Federal Power Act ("FPA").[5] The Commission is simply not authorized to provide an entire class of generation with a new payment stream, whether temporary or permanent, based on a desire to keep all options open for the future. The FPA holds the Commission to a higher standard: a finding must be made that the failure of affected RTO/ISO tariffs to provide for cost-of-service guarantees to certain merchant generators has resulted in rates that are unjust and unreasonable. Such a showing has not been made and, thus, the proposed payments cannot be required by the Commission.[6] While the undersigned support the goals of a reliable and resilient grid, adoption of ill-considered discriminatory payments contemplated in the DOE NOPR is not supportable – or even appropriate – from a legal or policy perspective.

[5] 16 U.S.C. § 824e (2012).

[6] The D.C. Circuit recently reaffirmed the limits of the Commission's ability to act under FPA section 206. *Emera Maine v. FERC*, 854 F.3d 9, 24 (D.C. Cir. 2017) (reaffirming that FPA section 206 requires the Commission to make an "explicit finding that existing rates are unjust and unreasonable *before* proceeding to set a new rate" (emphasis added)). Adoption of the DOE NOPR proposal notwithstanding the dearth of evidence in the record supporting action would lead to a remand decision from the reviewing court, which could further limit the Commission's ability to legitimately use FPA section 206 in future proceedings.

II. DESCRIPTION OF THE SIGNATORIES

The Joint Industry Commenters is a coalition of industry associations and individual companies that reflects a broad and financially significant cross-section of the energy economy, including representatives of independent power producers, renewable energy developers and financiers, advanced technology interests, vertically integrated utilities, industrial and commercial customers, and the natural gas and petroleum sector. The DOE NOPR has united the interests of this diverse group of industry participants to express their concerns to the Commission, and correct the record regarding issues raised in certain October 23 initial comments.

III. COMMENTS

A. The Initial Comments Have Not Provided New Evidence of an Immediate Reliability or Resiliency Problem Sufficient to Justify Discriminatory Payments to Preferred Generating Resources.

Of the hundreds of comments filed in response to the DOE NOPR, only a handful purported to provide substantive evidence in support of the proposal. In contrast, an overwhelming majority of initial comments agree that the DOE NOPR fails to substantiate its assertions of an immediate reliability or resiliency need related to the retirement of merchant coal-fired and nuclear generation. Numerous studies identified by commenters reinforce the conclusion that there is no imminent resilience problem that would justify, much less require, the immediate implementation of new out-of-market payments to a preferred class of generation.[7]

[7] *See* The Brattle Group, *Evaluation of the DOE's Proposed Grid Resiliency Pricing Rule* ("Brattle Report"), Appendix A, Review of Resilience Studies, appended to the Joint Industry Comments Opposing the DOE Proposal, Docket No. RM18-1-000 (Oct. 23, 2017) ("Joint Industry Comments") (identifying multiple industry studies); *see also* Comments of the Electricity Consumers Resource Council, American Chemistry Council, American Forest and Paper Association, American Iron and Steel Institute, Carolina Utility Consumers Association, Connecticut Industrial Energy Consumers, Illinois Industrial Energy Consumers, Indiana Industrial Energy Consumers, Inc., Louisiana Energy Users Group, Multiple Intervenors, Texas Industrial Energy Consumers, and Wisconsin Industrial Energy Group, Inc., Docket

The few commenters that attempt to provide additional substantive evidence in support of the NOPR include only those entities that would receive the preferential payments proposed by the NOPR,[8] their trade associations, and their fuel suppliers (referred to herein as the "NOPR Beneficiaries").[9] While these entities collectively provide thousands of pages of information, none are able to rehabilitate DOE's unsubstantiated conclusion that retirements of merchant coal-fired and nuclear generation pose an imminent threat to the grid that must be addressed on a fast-tracked schedule.[10]

Even the RTOs and ISOs themselves filed comments opposing the DOE NOPR, noting that the proposed cost-of-service payments to preferred generation would disrupt the competitive markets and are neither warranted nor justified. While affirming that reliability is and always has been a high priority concern, no RTO or ISO supported the Secretary's proposal or the finding of an immediate reliability or resiliency need.[11] Most notably, this includes PJM

No. RM18-1-000 (Oct. 23, 2017) ("U.S. Manufacturers Comments"); and Comments of the Natural Gas Supply Association, Docket No. RM18-1-000 (Oct. 23, 2017) ("NGSA Comments").

[8] Notably, some companies owning generation that would benefit from the DOE NOPR even forcefully opposed the proposal. *See* Comments of Dynegy Inc., Docket No. RM18-1-000, at 5 (Oct. 23, 2017) ("notwithstanding the significant potential financial upside to Dynegy from the NOPR discussed above, Dynegy emphasizes that it remains opposed to the proposed rule, which amounts to a re-regulation of coal and nuclear facilities that would severely harm, and potentially represent a death blow to, the competitive markets that the Commission has worked hard to develop, and which have delivered substantial benefits to ratepayers, over the past decades.")

[9] *See* Comments of FirstEnergy Service Company *et al*. in Support of the Grid Reliability and Resilience Pricing Notice of Proposed Rulemaking, Docket No. RM18-1-000 (Oct. 23, 2017) ("FirstEnergy Comments"); Comments of the PSEG Companies, Docket No. RM18-1-000 (Oct. 23, 2017) ("PSEG Comments"); Comments of Exelon Corp., Docket No. RM18-1-000 (Oct. 23, 2017) ("Exelon Comments"); Comments of the American Coalition for Clean Coal Electricity and National Mining Association, Docket No. RM18-1-000 (Oct. 23, 2017) ("ACCCE/NMA Comments"); Comments of Murray Energy Corporation in Support of Proposed Rule, Docket No. RM18-1-000 (Oct. 23, 2017) ("Murray Energy Comments"); and Rulemaking Comments of the Nuclear Energy Institute, Docket No. RM18-1-000 (Oct. 23, 2017) ("NEI Comments") (collectively, the "NOPR Beneficiaries").

[10] *See* First Energy Comments at 3-4; PSEG Comments at 5-12; and NEI Comments at 28.

[11] *See* Initial Comments of PJM Interconnection, L.L.C. on the United States Department of Energy Proposed Rule, Docket No. RM18-1-000, at 6 (Oct. 23, 2017) ("PJM Comments") (noting that the DOE NOPR fails to demonstrate that any reliability or resiliency threats are imminent, or that these threats stem from the retirements of the identified generation); Comments of the Midcontinent Independent System

Interconnection, L.L.C. ("PJM"), the RTO in which most of the units potentially eligible for payments under the DOE NOPR are located. PJM states that its region "unquestionably is reliable, and its competitive markets have for years secured commitments from capacity resources that well exceed the target reserve margin established to meet [North American Electric Reliability Corporation ("NERC")] requirements."[12] And PJM analysis has confirmed that the region's generation portfolio is not only reliable, but also resilient.[13]

The NOPR Beneficiaries disagree, arguing that retirements of coal-fired and nuclear generation can destabilize the regional energy markets and result in grid failure. These commenters contend that such retirements are being driven by market flaws that fail to compensate coal-fired and nuclear generation for their unique reliability and resiliency attributes. And they argue that the strong performance of that generation during extreme weather events justifies the preferential payments proposed in the DOE NOPR. The undersigned commenters

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Operator, Inc., Docket No. RM18-1-000, at 5-11 ("MISO Comments") (Oct. 23, 2017) (rejecting the view that there are imminent reliability issues facing the region); Comments of the Southwest Power Pool, Inc., Docket No. RM18-1-000, at 3 (Oct. 23, 2017) (noting that the DOE NOPR is too unclear to provide a meaningful response to what might qualify in the SPP markets); Comments of ISO New England Inc., Docket No. RM18-1-000, at 1 (Oct. 23, 2017) ("New England has no urgent need to rush to a solution, given that the three-year Forward Capacity Market has ensured resource adequacy until at least 2021, and the region has already taken steps to improve operating procedures and generator incentives to secure firm fuel supplies"); Comments of the New York Independent System Operator, Inc., Docket No. RM18-1-000, at 2 (Oct. 23, 2017) ("NYISO Comments") (stating that the proposal is flawed and "premised on assumptions and statements that are not accurate as they relate to New York"); and Comments of the California Independent System Operator Corp., Docket No. RM18-1-000, at 9-13 (Oct. 23, 2017) (noting the existing structures in place to address capacity and resource adequacy). In addition, MISO noted that the concerns underlying the DOE NOPR are less present in its region given its lack of a centralized capacity market and the widespread use of integrated resource planning by state regulators. MISO Comments at 6-7.

[12] PJM Comments at 14.

[13] *See* Brattle Report at 14-15 (citing PJM Interconnection *Appendix to PJM's Evolving Resource Mix and System Reliability* at 41, PJM Interconnection (Mar. 30, 2017) ("PJM March 2017 Report"), http://www.pjm.com/~/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx). Contrary to the assertions of ACCCE and NMA, the PJM March 2017 Report does not support immediate action and a failure in efforts to support grid resilience. ACCCE/NMA Comments at 12-13. While the PJM March 2017 Report lists items that may impact the grid, it finds that its current resource mix performs well, meets reliability needs, and will continue to maintain reliability even if additional units retire. *See* PJM March 2017 Report at 4-5.

refute each of these assertions and renew our request that the Commission reject the discriminatory payment structure proposed in the DOE NOPR.

1. The NOPR Beneficiaries Fail to Demonstrate Imminent Reliability or Resiliency Problems Sufficient to Justify Immediate Discriminatory Payments to Their Generation.

The NOPR Beneficiaries contend that further retirements of merchant coal-fired and nuclear generation will create a resiliency nightmare, destabilizing the markets and allowing prolonged grid failure following disruptive events.[14] To prevent this apocalyptic future, they argue that the Commission should provide out-of-market, full cost-based support for the very generation resources that they happen to own,[15] compensating these units for the value of fuel security and for their contribution to a diverse power supply portfolio.[16]

The undersigned commenters strongly disagree that there is any immediate need to categorically retain all the generation resources that the DOE NOPR seeks to reward with discriminatory payments. In fact, the record evidence shows the opposite. Studies by NERC, individual RTOs, independent market monitors, and consultants all support the finding that grid reliability is in no immediate danger from currently planned generation retirements.[17] These studies also confirm the ability of the systems to maintain resilience over time as their systems evolve from coal and nuclear generation to other sources of supply.[18] While supporting on-going

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[14] *See* FirstEnergy Comments at 31-34.

[15] FirstEnergy Comments at 14; FirstEnergy Comments, Exhibit 3, Affidavit of Raymond Gifford at P 4.

[16] *See* FirstEnergy Comments at 14-16; PSEG Comments at 24-25; ACCCE/NMA Comments at 60.

[17] *See, e.g.*, PJM March 2017 Report; Comments of Potomac Economics, Ltd., Docket No. RM18-1-000, at 10-11 (Oct. 23, 2017) (citing MISO January 2014 Polar Vortex Analysis: Impact of Potential Generator Retirements and Natural Gas Availability at 6); NERC, *2016 Long-Term Reliability Assessment* (Dec. 2016) ("2016 NERC Assessment"), http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/2016%20Long-Term%20Reliability%20Assessment.pdf; FERC Staff, Winter 2017-18 Energy Market Assessment, Docket No. AD06-3-000 (Oct. 19, 2017) ("FERC Staff Winter 2017-18 Assessment"), www.ferc.gov/market-oversight/reports-analyses/mkt-views/2017/10-19-17-A-3.pdf.

[18] *See* PJM March 2017 Report at 5, 39.

evaluation of the issues that the DOE NOPR highlights, NERC states in its comments that the impact of generation retirements and fuel diversity on grid resiliency creates no "immediate or near-term emergency related to such retirements."[19]

Although the NOPR Beneficiaries submit affidavits from several witnesses addressing resilience, they fail to demonstrate that the evolving generation mix is resulting in an imminent threat to the resiliency of the U.S. electric system beyond the general arguments made in the DOE NOPR and rebutted in initial comments.[20] The Joint Industry Commenters provide a few examples of such dubious evidence below:

- In support of the PSEG Comments, Dr. Lawrence J. Makovich reiterates the claims in the DOE proposal that the Polar Vortex supports immediate action to prevent the "further erosion of existing diversity" of generation resources due to retirement.[21] Dr. Makovich, one of the authors of the flawed IHS Markit report[22] relied upon by the Secretary in the DOE proposal,[23] contends that another major weather event like the Polar Vortex is likely to cause significant disruption based on a view of the 2016 generation resource mix in PJM.[24] However, as even Dr. Makovich himself notes,[25] PJM has taken measures to modify resource compensation, and PJM has confirmed through empirical analysis that its system is resilient under a range of foreseeable generation portfolios.[26] It is not surprising, then, that NERC agrees that there is no imminent danger to the grid

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19 Comments of the North American Electric Reliability Corp. in Response to Notice of Proposed Rulemaking at 5 (Oct. 23, 2017).

20 Among many others, information rebutting the NOPR Beneficiaries' claims is included in the Joint Industry Comments (and appended Brattle Report); NGSA Comments; U.S. Manufacturers Comments; Comments of the Independent Market Monitor for PJM, Docket No. RM18-1-000 (Oct. 23, 2017) ("PJM IMM Comments"); Comments of the National Rural Electric Cooperative Association, Docket No. RM18-1-000 (Oct. 23, 2017); Comments of the Washington Utilities and Transportation Commission, Docket No. RM18-1-000 (Oct. 23, 2017); Comments of the ISO/RTO Council, Docket No. RM18-1-000 (Oct. 23, 2017); NYISO Comments; and Comments of the Pennsylvania Public Utility Commission, Docket No. RM18-1-000 (Oct. 23, 2017).

21 PSEG Comments, Attachment A, Affidavit of Dr. Lawrence J. Makovich at 17 ("Makovich Affidavit").

22 IHS Markit, *Ensuring Resilient and Efficient Electricity Generation: The Value of the Current Diverse US Power Supply Portfolio* (Sept. 2017), https://www.globalenergyinstitute.org/sites/default/files/Value%20of%20the%20Current%20Diverse%20US%20Power%20Supply%20Portfolio_V3-WB.PDF.

23 *See* DOE NOPR at 46,943.

24 Makovich Affidavit at 10-11.

25 *Id.* at 11.

26 *See* PJM March 2017 Report at 5.

due to the currently planned retirement of certain coal and nuclear-fired facilities in PJM or any other RTO/ISO region.[27] The conclusions in the Makovich affidavit are simply not supported by the facts.

- In its comments, Exelon provides an affidavit from Dr. Paul Stockton presenting a worst-case scenario in an attempt to justify the discriminatory payments proposed in the DOE NOPR.[28] Dr. Stockton argues that common mode failures and "black sky" events could plunge a significant portion of the nation into darkness, creating a threat to national security.[29] Yet Dr. Stockton makes little effort to link this threat to the currently planned retirement of merchant coal-fired and nuclear generation. Indeed, no mention is made regarding common mode failures and "black sky" events implicating nuclear generation, such as the earthquake that damaged the Fukushima Daiichi plant and led to the immediate shut down of all nuclear plants in Japan for safety reasons.[30] Dr. Stockton focuses on implausible scenarios involving natural gas-fired generation without acknowledging the risks faced by other generation technologies.

- Through an affidavit from Dr. Henry Chao, FirstEnergy similarly contends that the increased reliance on natural gas-fired generation and rapid introduction of renewable technologies presents risks to the grid.[31] Dr. Chao states that coal-fired and nuclear generation has supported the grid for several decades and that retirement of those resources negatively impacts the resiliency of the grid.[32] However, Dr. Chao does not cite a single empirical study to support this claim, which has been rebutted in the initial comments in this proceeding and the studies performed by entities responsible for the operation and reliability of the grid.[33]

Because both the DOE NOPR and the NOPR Beneficiaries have failed to show an actual, imminent threat to grid reliability, the Commission does not have a sufficient record on which to conclude that the existing RTO/ISO tariffs are "unjust, unreasonable, [or] unduly

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[27] *See* 2016 NERC Assessment at 2-3, 6.

[28] Exelon Comments, Exhibit A, Prepared Direct Testimony of Dr. Paul Stockton on Behalf of Exelon Corporation ("Stockton Affidavit").

[29] Stockton Affidavit at 10.

[30] At the time of the Fukushima incident, 54 nuclear units were operating in Japan, only 5 of which have since come back online. *See* Ken Silverstein, *Japan Circling Back to Nuclear Power After Fukushima Disaster*, Forbes (Sept. 8, 2017), https://www.forbes.com/sites/kensilverstein/2017/09/08/japan-may-be-coming-full-circle-after-its-fukushima-nuclear-energy-disaster/#12d1874130e8.

[31] FirstEnergy Comments, Exhibit6, Affidavit of Dr. Henry Chao on Behalf of FirstEnergy Service Company ("Chao Affidavit").

[32] *Id.* at 11-13.

[33] *See, e.g.*, Brattle Report at 14; 2016 NERC Assessment at 2-3; PJM March 2017 Report at 4.

discriminatory," a necessary predicate for Commission action.[34] While it is certainly true that some merchant coal-fired and nuclear generation has retired due to low prices in the competitive regional electricity markets,[35] in most cases those units have been older and relatively inefficient.[36] In any event, the weight of the record in this proceeding confirms that such retirements are not creating an immediate reliability threat that justifies propping up *all* merchant coal-fired and nuclear generation in the affected markets. The Commission should therefore reject the preferential payments proposed in the DOE NOPR and supported by the NOPR Beneficiaries.

2. Coal-Fired and Nuclear Generation are not Unique in Contributing to Grid Reliability and Resiliency.

The NOPR Beneficiaries also argue that nuclear and coal-fired generation provides unique resiliency benefits that are not adequately considered, or compensated, in the current regional markets. For example, NEI notes that nuclear power facilities can operate for long periods of time between refueling independent of supply chain disruptions, with low fuel cost volatility and high capacity factors.[37] Similarly, ACCCE/NMA touts coal-fired generation's supply chain security, the ability to process fuel on-site, on-site storage attributes, and long-term supply contract stability.[38] Joined by other NOPR Beneficiaries,[39] NEI and ACCCE/NMA argue

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[34] 16 U.S.C. § 824e; *see Cal. Indep. Sys. Operator Corp. v. FERC*, 372 F.3d 395, 398-99 (D.C. Cir. 2004); *Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 10 (D.C. Cir. 2002); *Algonquin Gas Transmission Co. v. FERC*, 948 F. 2d 1305, 1308 (D.C. Cir 1991) (articulating FERC's two-part burden).

[35] It is notable that the PJM IMM has found that nuclear generation in PJM earns revenues well above avoidable costs. PJM IMM Comments at 18.

[36] FirstEnergy concedes that the older generation being retired would require significant and costly upgrades to operate reliably. FirstEnergy Comments at 24-29. This acknowledges that retaining those plants would do little for reliability without extensive and expensive upgrades.

[37] NEI Comments at 22-25.

[38] ACCCE/NMA Comments at 14-16.

[39] *See* FirstEnergy Comments at 11-14; PSEG Comments at 5.

that these attributes are not adequately recognized or compensated under current market structures.[40]

There is no doubt that each type of generation on the grid has unique attributes, but extolling the attributes of one particular technology or fuel-type does not advance the conversation of whether, and if so how, a market should place a value on a particular attribute. Nor does it justify the immediate adoption of discriminatory payments to merchant coal-fired and nuclear generation as proposed in the DOE NOPR. Even assuming that a certain class of generation (regardless of how defined) contributes to grid resiliency (also regardless of how that is defined), it does not follow that only that class of generation should receive additional, out-of-market compensation. In fact, other configurations of future supply may be equally resilient or more resilient, as demonstrated in PJM's March 2017 analysis of system performance under different generation portfolios.[41] In every RTO/ISO market, operational needs are met by the RTO/ISO defining a market product that reflects that need and allowing all resources to compete to provide that product in a technology-neutral and fuel-neutral way. The core of the NOPR Beneficiaries' arguments is that RTOs/ISOs have not yet reflected their resiliency needs in market products and, therefore, specific kinds of generation resources need to receive separate compensation for their resiliency benefits. Even if true, the conclusion applies equally to other types of generation and energy technologies that provide resiliency benefits. Compensating one

[40] NEI Comments at 3 ("[e]nergy and capacity markets currently are blind to certain critical non-price factors"); ACCCE/NMA Comments at 32 ("this value is not being properly compensated by restructured administrative markets").

[41] *See* PJM March 2017 Report at 4-7 (finding that its market has a resilient resource mix for reliability in the near-term, a potential future resource mix with additional flexibility and ramping capability, the ability to maintain reliability with a portfolio of up to 86% natural gas-fired resources, and a support for defining and continually assessing future resilience needs through its "well-developed stakeholder process").

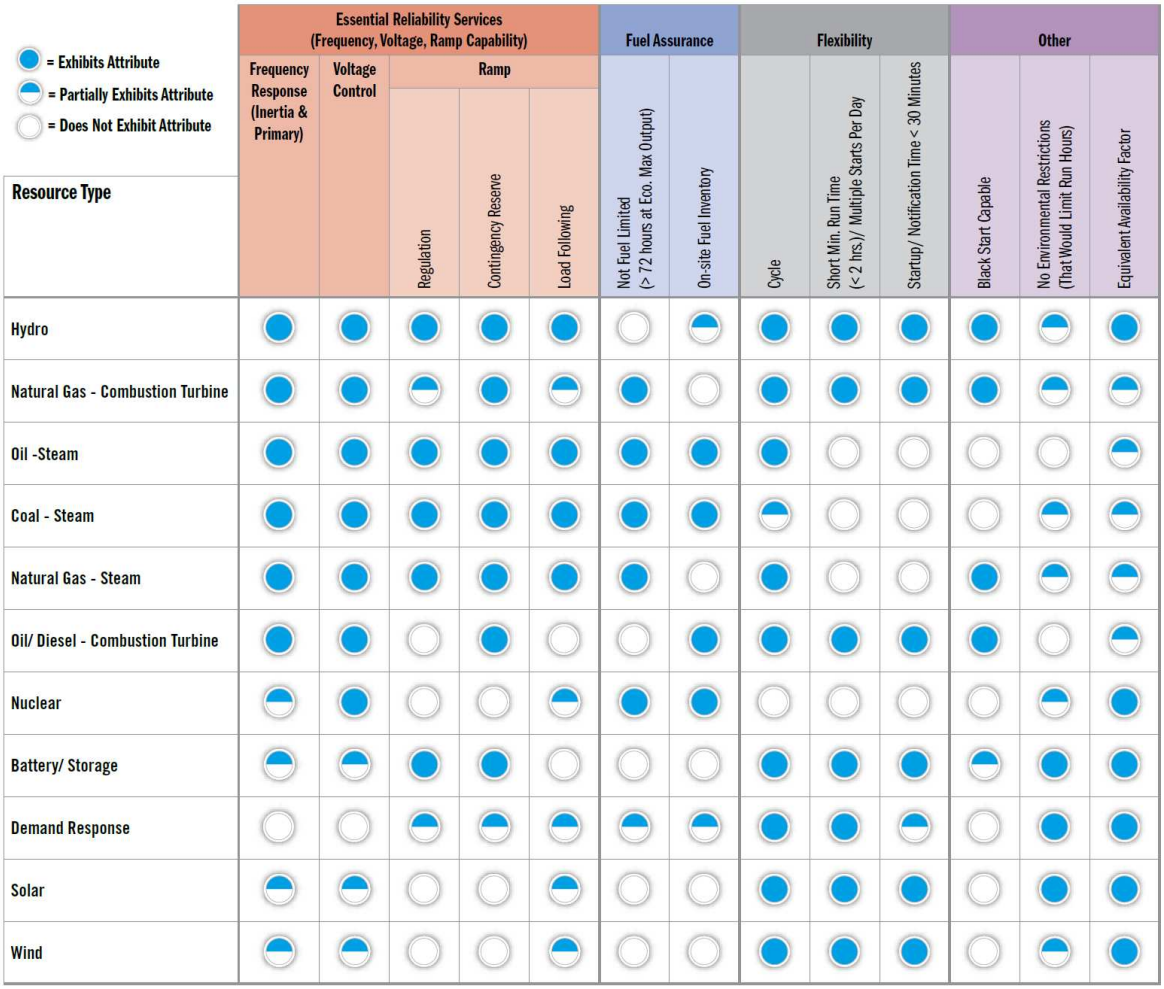
class of generation for resiliency without providing compensation to other classes of resources for resiliency is *per se* discriminatory and prohibited under sections 205 and 206 of the FPA.

There are a number of recent studies comparing the attributes of different generation types and energy technologies that show reliability and resilience attributes vary from technology to technology.[42] As noted above, PJM (the undisputed focus of the DOE NOPR) has evaluated the relative ability of different classes of resources to meet 13 attributes, as shown in Figure 1 below, that fall into the following categories: essential reliability services, fuel assurance, flexibility and other attributes.[43] This table shows that the attributes differ across each technology and that no technology provides the full set of desired attributes.

[42] *See, e.g.*, PJM March 2017 Report; United States Department of Energy, Staff Report to the Secretary on Electricity Markets and Reliability (August 2017) ("DOE Staff Report"), https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf; PA Consulting Group, The Contribution of the Coal Fleet to America's Electricity Grid (August 2017) ("PA Consulting Analysis"), http://www.americaspower.org/wp-content/uploads/2017/08/PA-Coal-Fleet-Study.pdf; and Shavel, *et al.*, Diversity of Reliability Attributes: A Key Component of the Modern Grid, Prepared for American Petroleum Institute (May 17, 2017) ("Brattle API Analysis"), https://sites.hks.harvard.edu/hepg/Papers/2017/Brattle_20170517-API-Diversity-of-Attributes.pdf. *See also* Brattle Report.

[43] PJM March 2017 Report at 16. The DOE Staff Report also relied on this PJM analysis.

Figure 1: PJM's Evolving Mix Study Generator Reliability Attribute Matrix[44]



Using these various attributes, PJM analyzed a range of generation portfolios to determine the relative level of system performance under different scenarios and concluded that its expected near-term resource portfolio is high performing and well equipped to provide the identified generator reliability attributes.[45]

While other studies comparing the attributes of different classes of resources cited in the record focus on different sets of attributes, some overlapping and some diverging, the general conclusion reached in each study is the same: each type of resource contributes to reliability and resilience in different ways. It is therefore not surprising that a variety of alternative resource

44 PJM March 2017 Report at 16.
45 PJM March 2017 Report at 4.

portfolios can meet reliability and resiliency targets.[46] The NOPR Beneficiaries fail to address this reality and, therefore, fail to justify discriminatory payments to their specific class of generation.

Although continued study of how different resource portfolios benefit the grid is important (and, indeed, is ongoing at the national and regional levels), neither the DOE NOPR nor the NOPR Beneficiaries have justified picking winners among fuel types for preferential out-of-market payments. Coal-fired and nuclear generation resources clearly contribute to grid reliability and resilience – but so do other types of generation and energy technologies, which has allowed RTO/ISO regions to ensure reliable and resilient operations through fuel-neutral market mechanisms. No compelling evidence has been provided in this proceeding sufficient for the Commission to conclude that the immediate retention of otherwise retiring merchant coal-fired and nuclear units is necessary to ensure the reliability of the electric grid.

3. The NOPR Beneficiaries' Examples of Operational Difficulties During "Extreme" Events Provide no Additional Support to the Record.

The NOPR Beneficiaries also argue, as suggested in the DOE NOPR, that the performance of generation during recent extreme events justifies action by the Commission to prop up uneconomic merchant coal-fired and nuclear generation.[47] The NOPR Beneficiaries merely discuss in more detail the events and selective study results cited in the DOE NOPR and the Secretary's accompanying letter, reiterating the same inaccurate conclusions from the Polar Vortex and other weather-related system events.[48] As discussed in initial comments, these

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[46] *See, e.g.*, DOE Staff Report at 85-89, 100; and Brattle API Analysis at 21-25. *See also* Brattle Report at 14, 33.

[47] FirstEnergy Comments at 45-49; NEI Comments at 28; ACCEE/NMA Comments at 59-60; and PSEG Comments at 20-21.

[48] *See, e.g.*, PSEG Comments at 8-9 (discussing failures during the Polar Vortex); ACCCE/NMA Comments at 47 (reviewing outages during the Polar Vortex); FirstEnergy Comments at 22 (citing coal's "resiliency" during the Polar Vortex).

arguments fail to acknowledge the underlying causes of outages and generator unavailability identified in the analyses following these events, such as the role of the distribution system, the issues impacting coal storage, and other issues specifically rebutted in the initial comments filed in this docket.[49] Natural gas industry operational problems were not a cause of generator outages during the Polar Vortex.[50] NERC and affected regions noted the role various generation types and energy technologies played in mitigating the impacts of the Polar Vortex.[51] The NOPR Beneficiaries provide no persuasive, or even new, evidence regarding resource performance that the Commission could rely on to adopt the Secretary's proposal in its current form.

B. Alternative Subsidy Structures Proposed by Commenters Raise Their Own Issues that Would Need to be Explored through Separate Notice and Comment Procedures.

Apart from failing to introduce any new evidence to support a finding that the existing RTO/ISO tariffs are unjust and unreasonable, the NOPR Beneficiaries further undermine the DOE NOPR by proposing their own alternative compensation mechanisms for adoption by the Commission. The NOPR Beneficiaries thereby acknowledge, at least implicitly, that the preferential payment structure proposed in the DOE NOPR is unclear, unworkable, or both. However, the alternatives offered by the NOPR Beneficiaries are equally flawed both substantively and procedurally and extend well beyond the scope of the DOE NOPR. As with

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[49] *See, e.g.*, Joint Industry Comments at 3; Brattle Report at 10, 19; U.S. Manufacturers Comments at 9-11; NGSA Comments at 19.

[50] *See* NGSA Comments at 16-17. The NGSA Comments explain that some gas generators that had chosen to take gas delivery using interruptible service rather than contracting for firm capacity found that interruptible service was unavailable during the peak demand period. *Id.* *See also* FERC Staff Presentation, Commission and Industry Actions Relevant to Winter 2013-14 Weather Events, Docket No. AD14-8-000 (Oct. 16, 2014), https://www.ferc.gov/media/news-releases/2014/2014-4/10-16-14-A-4-presentation.pdf.

[51] *See* NERC, *Polar Vortex Review* at 4 (Sept. 2014), http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf; PJM Interconnection, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events* at 24 (May 8, 2014), http://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

the DOE NOPR, these alternatives ask the Commission to find that certain types of generation are deserving of additional compensation for the resiliency or reliability benefits they provide. Such a determination could not be based on the demonstrated needs of a particular RTO/ISO, given that every RTO/ISO has objected to the imminent resiliency need claimed in the DOE NOPR (with PJM in particular confirming the resiliency of its system with empirical analysis[52]). Commission action on these proposals therefore would amount to the Commission defining – on its own and without the support of any RTO/ISO – the resiliency and reliability needs to be imposed on affected RTO/ISO regions. Such unprecedented action has not been justified by the NOPR Beneficiaries.

1. FirstEnergy's Alternative Compensation Proposal Raises its own Set of Questions and Concerns.

FirstEnergy proposes to implement the DOE NOPR with a set of specified tariff provisions, a new *pro forma* agreement for Resiliency Support Resources ("RSR"), and a proposed notice to market participants for the Commission to adopt under the auspices of the DOE NOPR.[53] This proposal, spanning over 3,600 pages of commentary and additional information, would add a new attachment to the RTO/ISO tariffs that would provide a defined cost-based compensation structure for qualifying resources, along with a *pro forma* 15-year agreement for the RTO/ISO and the RSR unit to execute.[54] Notably, FirstEnergy would broaden the eligibility criteria for qualifying resources in a number of respects, including changing the definition of services that eligible generation must provide, adding a materiality standard for compliance with applicable environmental regulations, creating a case-by-case determination for

52 *See* PJM March 2017 Report.
53 FirstEnergy Comments at 43-52, and Exhibit 2, Resiliency of Resource Provisions.
54 *Id*. at 45.

eligibility in the event of environmental non-compliance, and limiting the environmental compliance aspect of eligibility to consider only federal environmental regulations.[55]

FirstEnergy's RSR proposal appears to be an attempt to fill in some of the critical implementation details that were missing from the DOE NOPR. While the RSR proposal is certainly detailed, FirstEnergy does not provide an adequate record for adopting the tariff provisions and *pro forma* agreement as proposed. As a threshold matter, the necessary showings for Commission action under section 206 have not been made, as discussed above. Moreover, the Administrative Procedure Act ("APA") requires specific notice and comment procedures for new regulations such as those offered by FirstEnergy.[56] An agency "must itself provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment."[57] The presentation of the FirstEnergy proposal for the first time in comments, the expedited timeline for reply comments and FERC action, and the need to digest a quite detailed proposal all mean that the FERC cannot adopt the FirstEnergy proposal in this proceeding consistent with the APA.

Even if the Commission could overcome these legal and procedural infirmities, FirstEnergy does not adequately support the substance of its proposal. FirstEnergy claims that the proposed process for entering into and establishing compensation under RSR agreements is consistent with those in place for Reliability Must Run ("RMR") agreements. While there are some superficial similarities between the two, the details are quite different in significant ways. RMR status is tied to an explicit finding by the RTO that defined reliability criteria would be

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55 *Id.* at 40-42.

56 The APA requires the Commission to provide notice of proposed rules adequate to afford interested parties a reasonable opportunity to participate in the rulemaking process. Critically, a notice of proposed rulemaking must provide sufficient factual detail and rationale to permit interested parties to comment meaningfully. 5 U.S.C. § 553.

57 *Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1312 (D.C. Cir. 1991) (quoting *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983)).

violated by the retirement of a specific unit. The RSR process proposed by FirstEnergy turns the RMR process on its head. Instead of the RTO/ISO providing engineering studies demonstrating the reliability need for an otherwise retiring generating unit,[58] no evaluation by the RTO/ISO would be required to grant an RSR agreement. In addition, the RSR agreement would extend for 15 years without any further consideration of actual need for the unit, whereas RMR units are renewed annually only if the RTO/ISO demonstrates a continuing reliability need for the unit based on explicit reliability criteria violations. And compensation provided under the *pro forma* RSR agreement would be significantly expanded beyond RMR precedent, going so far as to include bailing an RSR unit out of debt based on an unsupported assertion that revenues are needed to ensure long-term operation. FirstEnergy has failed to sufficiently address these departures from the Commission's RMR policy and, therefore, its RSR proposal is inadequately supported.

2. PSEG's Two-Tiered Approach to Pricing Reform Goes Well Beyond the Scope of the DOE NOPR.

PSEG proposes a two-tiered approach to subsidizing coal-fired and nuclear generation in which the Commission first would adopt the preferential payments proposed in the DOE NOPR on an interim basis, pending consideration of longer-term market reforms to address the concerns outlined in the DOE NOPR.[59] As discussed above, there is no need for immediate adoption of the DOE NOPR proposal, whether on an interim or permanent basis. Moreover, there is no such thing as an interim remedy under the FPA. In order for the Commission to take action under section 206, it must find that existing RTO/ISO tariffs are unjust and unreasonable and, once it

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[58] *See, e.g., N.Y. Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 13-15 (2015), *order on compliance and reh'g*, 155 FERC ¶ 61,076 (2016).

[59] PSEG Comments at 2-5. NEI submitted similar comments, requesting that the Commission adopt the DOE NOPR remedy on an interim basis pending a more permanent solution. NEI Comments at 28-30.

makes that finding, the replacement tariff provisions directed by the Commission establish the just and reasonable rate until such time as a further finding is made under section 206 or a filing is received under section 205. The legal requirements for Commission action under section 206 are fatal to the first step of PSEG's proposal.

The second step of PSEG's proposal is equally flawed. PSEG asks the Commission to direct all RTOs/ISOs implicated by the DOE NOPR to develop a long-term market-based methodology for valuing resiliency in the generator fleet. PSEG offers several methodologies for consideration, ranging from the use of carbon pricing, a fuel security value curve, or alternative market clearing parameters.[60] Again, the only authority the Commission has to issue such a directive is FPA section 206, and the necessary predicates for action have not been met. In any event, the long-term market remedies suggested by PSEG are all outside of the scope of the DOE NOPR, which proposes cost-of-service payments for certain preferred generation. And some of the options proposed by PSEG raise legal questions of first impression, such as the Commission's authority to direct RTO/ISOs to price carbon emissions. Consideration of the long-term pricing reforms suggested by PSEG would require a new rulemaking, regulatory process, or RTO/ISO-led initiative leading to a filing under FPA section 205. PSEG fails to address these questions, leaving its alternative proposal inadequately supported.

3. Exelon's Request for a Policy Statement on Mitigation of State Program Compensation Should be Rejected.

Finally, Exelon asks the Commission to issue a Policy Statement declaring that nuclear generation receiving payments under state-approved Zero-Emission Credit ("ZEC") programs are not subject to mitigation under RTO/ISO tariffs as a result of such payments.[61] The proper scope and application of the Minimum Offer Price Rule and other mitigation rules to generation

[60] PSEG Comments at 26-28.

[61] Exelon Comments at 27-28.

receiving ZEC payments is subject to pending litigation before the Commission in Docket Nos. EL13-62-002 and EL16-49-000 and on-going stakeholder processes in PJM[62] and ISO New England.[63] Exelon's attempt to unilaterally side-step those proceedings is, to put it mildly, offensive to the parties to those proceedings. The Commission should reject Exelon's request and address mitigation-related issues in the normal course, whether in the pending complaint dockets or in response to a tariff filing resulting from on-going stakeholder discussions.

IV. CONCLUSION

For the reasons explained above, the undersigned commenters continue to urge the Commission to reject the DOE proposal. Neither the DOE NOPR nor comments in response justify mandating adoption of the discriminatory payments for a preferred class of generation, nor the alternative compensation proposals offered by certain of the NOPR Beneficiaries.

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[62] *See* Capacity Construct/Public Policy Senior Task Force, http://www.pjm.com/committees-and-groups/task-forces/ccppstf.aspx (last visited Nov. 6, 2017).

[63] *See* Wholesale Markets and State Public Policy Initiative, https://www.iso-ne.com/committees/participants/wholesale-markets-state-public-policy-initiative (last visited Nov. 6, 2017).

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Dated: November 7, 2017